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A CASE STUDY ON ARTHRALGIA MANAGED WITH SALICYLICUM ACIDUM AND FORMICA RUFA: CLINICAL OUTCOMES USING VAS SCORE

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ABSTRACT

Background: Arthralgia (joint pain) is a common symptom seen in many rheumatological and musculoskeletal conditions such as rheumatoid arthritis, osteoarthritis, gout, SLE, etc. It significantly reduces quality of life and functional capacity. **Objective:** To evaluate and compare the analgesic effect of two homoeopathic medicines **Salicylicum Acidum** and **Formica Rufa** in arthralgia cases using **VAS (Visual Analogue Scale)** and observe symptomatic changes during follow-up. **Methods:** A hospital-based case series was conducted in patients aged >18 years suffering from arthralgia. Patients were managed with individualized homoeopathic approach using either Salicylicum Acidum or Formica Rufa (liquid/dilution form). Outcome was assessed using VAS score at baseline and follow-up visits. **Results:** Both Salicylicm Acidum and Formica Rufa groups showed reduction in mean VAS score post- treatment as compared to baseline values, indicating improvement in pain. **Conclusion:** Salicylicum Acidum and Formica Rufa demonstrated beneficial pain-relieving effects in arthralgia cases. Larger studies with longer follow-up are recommended for stronger evidence.

KEYWORDS: Arthralgia, Homeopathy, Salicylicum Acidum, Formica Rufa, VAS, Joint pain, Case Study.

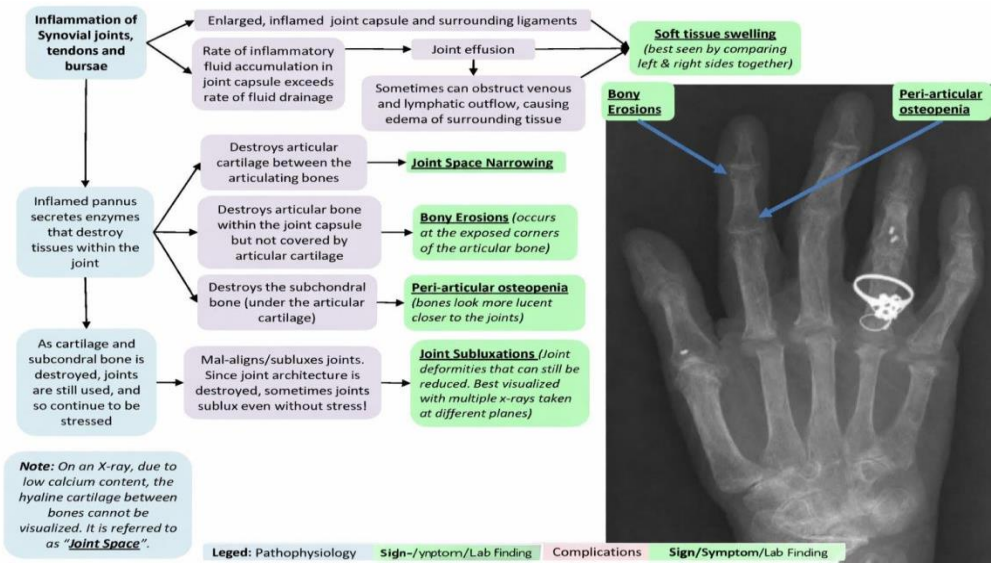
INTRODUCTION

Arthralgia (from Greek *arthron* meaning joint and *algos* meaning pain) refers to pain in the joints and is a frequent complaint in clinical practice. It can arise due to involvement of

articular structures such as synovium, synovial fluid, cartilage, intra-articular ligaments, joint capsule, juxta-articular bone, or due to **non- articular structures** such as tendons, bursae, muscles, fascia, nerves, and skin. Arthralgia is commonly observed in diseases like **gout, rheumatoid arthritis, osteoarthritis, systemic lupus erythematosus (SLE)** and many inflammatory or degenerative conditions. It significantly decreases the quality of life and affects routine daily activities.

Musculoskeletal disorders constitute a major public health problem worldwide. Joint pain significantly affects mobility, daily functioning, occupational performance, and psychological well-being. With increasing life expectancy, sedentary lifestyle, obesity, nutritional deficiencies, and occupational strain, the incidence of joint- related complaints is steadily rising. Arthralgia not only affects the elderly population but is increasingly observed among middle-aged and even younger individuals due to lifestyle changes and stress-related factors.

From a pathophysiological perspective, joint pain may arise due to irritation of the synovial membrane, degeneration of articular cartilage, capsular strain, ligamentous injury, immune-mediated inflammation, or deposition of metabolic crystals. Pain perception is mediated through nociceptors stimulated by inflammatory mediators such as prostaglandins, cytokines, and bradykinin. Chronic stimulation may lead to central sensitization, thereby perpetuating pain even in the absence of significant structural pathology.



Modern medical management of arthralgia primarily aims at symptomatic relief. Non-steroidal anti-inflammatory drugs (NSAIDs), analgesics, corticosteroids, muscle relaxants,

and disease- modifying agents are commonly prescribed depending on the underlying cause. Although these therapies provide temporary relief, long-term use is associated with adverse effects such as gastritis, renal impairment, cardiovascular risks, and immunosuppression. Furthermore, symptomatic suppression does not always address the constitutional susceptibility or recurrence tendency.

Homoeopathy approaches disease from a fundamentally different perspective. According to Organon of Medicine, disease is a dynamic disturbance of the vital force, expressed through a totality of symptoms. Joint pain is not viewed merely as a localized pathology but as an external manifestation of internal imbalance. The aim of treatment is not only palliation but restoration of health by stimulating the body's self-regulatory mechanism.

In chronic conditions, Hahnemann elaborated the concept of miasms in Chronic Diseases, describing psora, sycosis, and syphilis as fundamental causes underlying chronic diseases. Arthralgia, especially when persistent or recurrent, may represent expression of underlying miasmatic dyscrasia. Psoric manifestations may present as functional pains without structural damage; sycotic tendencies may show infiltration and stiffness; while syphilitic miasm may produce destructive joint pathology.

Homoeopathic prescribing emphasizes individualization. No two patients suffering from arthralgia are identical. The location, sensation, modalities (better or worse from motion, rest, temperature), concomitant symptoms, mental generals, physical constitution, and past history form the basis of remedy selection. Thus, the same diagnosis may require different remedies in different individuals.

The increasing burden of musculoskeletal disorders, limitations of conventional symptomatic treatment, and the need for safe long-term management highlight the importance of exploring homoeopathic intervention in arthralgia. Clinical evaluation through systematic study is essential to validate its effectiveness and to contribute to evidence-based homoeopathic practice.

Homeopathy offers an individualized approach in the management of arthralgia with scope for symptomatic relief and improvement in general wellbeing. In this case series, **Salicylicum Acidum** and **Formica Rufa** were selected for evaluation as both remedies are known for their therapeutic role in rheumatic and gouty pain. Salicylicum Acidum has been traditionally

indicated in rheumatic pains and bone-related complaints, while Formica Rufa is known for its affinity towards rheumatism, gouty pains and stiffness. The present case series aims to observe clinical outcomes in arthralgia cases using these remedies and to assess reduction of pain objectively through VAS scoring.

Salicylicum acidum and *Formica rufa* were used in the study as these drugs has found effective in managing arthralgia therapeutically. *Salicylic acid* has found to be effective in deprived bones, as well in rheumatic pains also. *Formica rufa* also has good effect in managing rheumatic and gouty pains.

Therefore, the present study is undertaken to evaluate the role of individualized homoeopathic medicines in the management of arthralgia.

Homoeopathic Concept of Arthralgia

In Homoeopathy, arthralgia is not merely considered a local joint disorder but a manifestation of a deeper disturbance of the **vital force**. Pain in joints is viewed as an outward expression of internal dynamic imbalance. According to classical homoeopathic philosophy, disease originates from an alteration in the life force and manifests through a totality of symptoms.

Therefore, arthralgia is not treated solely as “joint pain,” but as an individualized disease expression unique to each patient.

Concept According to Organon of Medicine

According to Organon of Medicine.

- Disease is a dynamic disturbance of the vital force.
- Symptoms are the only means through which the internal disorder is expressed.
- The totality of symptoms forms the basis of prescription.

In aphorisms 3 and 7, Hahnemann emphasizes that the physician must perceive what is to be cured in disease and what is curative in medicines. Arthralgia, therefore, must be understood through.

- Location of pain
- Sensation
- Modalities
- Concomitants
- Mental generals

- Physical constitution

The homoeopathic physician does not treat "arthralgia" but treats the patient who presents with arthralgia.

Miasmatic Concept of Arthralgia

Hahnemann elaborated chronic diseases in Chronic Diseases, attributing long-standing illnesses to fundamental miasmatic dyscrasias.

Arthralgia, especially when chronic or recurrent, is often miasmatic in origin.

Psoric Arthralgia

Characteristics.

- Functional pains without structural deformity
- Wandering pains
- Worse from exertion
- Hypersensitivity

Psora is considered the foundation of chronic functional disorders.

Sycotic Arthralgia

Characteristics

- Infiltration and thickening
- Stiffness
- Aggravation in damp weather
- Proliferative changes

Often seen in degenerative joint conditions with swelling and rigidity.

Syphilitic Arthralgia

Characteristics

- Destructive changes
- Deformities
- Night pains
- Bone involvement Represents deeper tissue destruction.

Miasmatic Interpretation

As described in Chronic Diseases.

- Psora → Functional pains
- Sycosis → Thickening, stiffness
- Syphilis → Destruction and deformity

Joint pains are frequently chronic miasmatic manifestations

MATERIALS AND METHODS

Study Setting

The study was conducted at **OPD/IPD** of *Homoeopathic Medical Hospital & Research Centre, Rajasthan.*

Study Duration

The study duration was **18 months**, with case registration during the first **15 months** and follow-up of each case for a minimum of **3 months**. Follow-up was done at **7-day intervals**.

Study Design

Hospital-based clinical case series (multiple patients with arthralgia managed and assessed through VAS).

Sample Size

Total cases analyzed: **180**

- Group A: **60 cases** (Salicylicum Acidum)
- Group B: **60 cases** (Formica Rufa)
- Group C: **60 cases** (Conventional treatment)

From 200 enrolled patients, **20 dropped out** and final analyzed data was for **180 participants**.

Inclusion Criteria

- Age **>18 years**
- Patients presenting with **joint pain**, stiffness, swelling, crepitus, restricted ROM, tenderness, deformity (varus/valgus/fixed flexion deformity)
- Both sexes
- Patients willing to participate and giving consent

Exclusion Criteria

- Pregnant or lactating females
- Cases with other serious systemic disorders
- Patients taking other ongoing treatments and unwilling to stop
- Emergency cases requiring immediate care

Withdrawal Criteria

- Discontinued treatment in between
- Improper follow-up
- Emergency requirement during study

Intervention Plan

Group A: Salicylicum Acidum

- Form: Liquid/Dilution
- Dose: Based on patient susceptibility and homoeopathic principles
- Repetition: **TDS for 7 days**
- Route: Oral
- Dispensing: College dispensary by certified pharmacist
- Source: GMP certified company

Group B: Formica Rufa

- Form: Liquid/Dilution
- Dose: Based on homoeopathic principles
- Repetition: **TDS for 7 days**
- Route: Oral
- Dispensing: College dispensary
- Source: GMP certified company

Group C: Conventional Treatment

Conventional medicines were prescribed by a qualified physician.

Co-Intervention

- Physiotherapy in all groups
- Nutritious balanced diet, exercise, hygiene advice

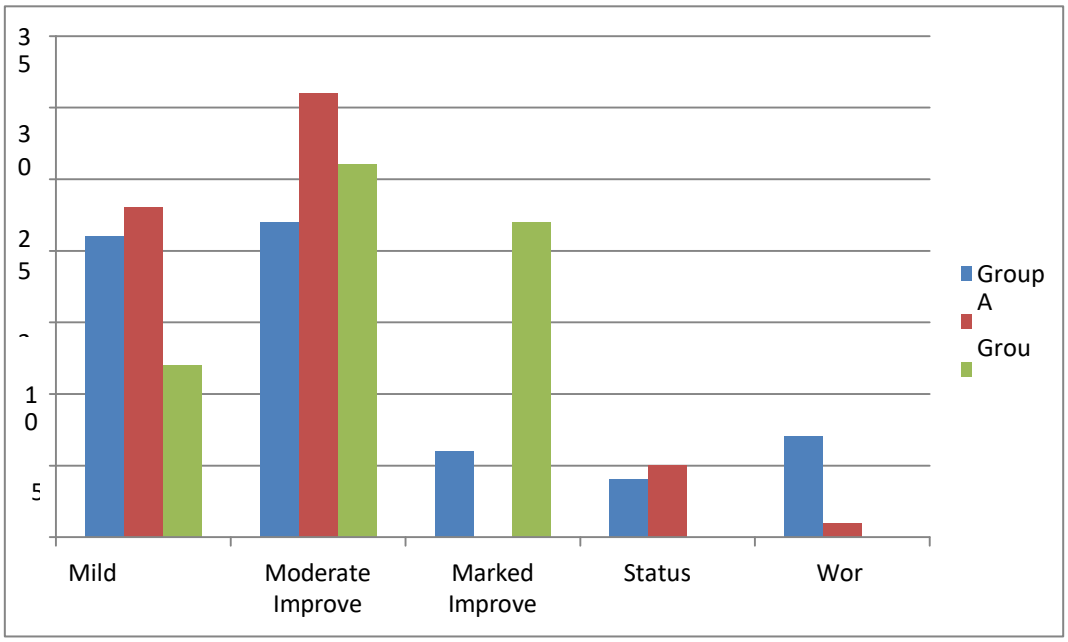
Outcome Measures

Primary Outcome

- Change in pain intensity assessed using **Visual Analogue Scale (VAS)**.

Improvement Grading

- Marked Improvement: **75–100%**
- Moderate Improvement: **50–74%**
- Mild Improvement: **25–49%**
- Non-significant: **<25%**
- Status quo: **0%**
- Worse: deterioration



Tools Used

- Case record form
- X-ray and investigations
- VAS scale
- RADAR 10.0
- SPSS software

OBSERVATIONS AND RESULTS

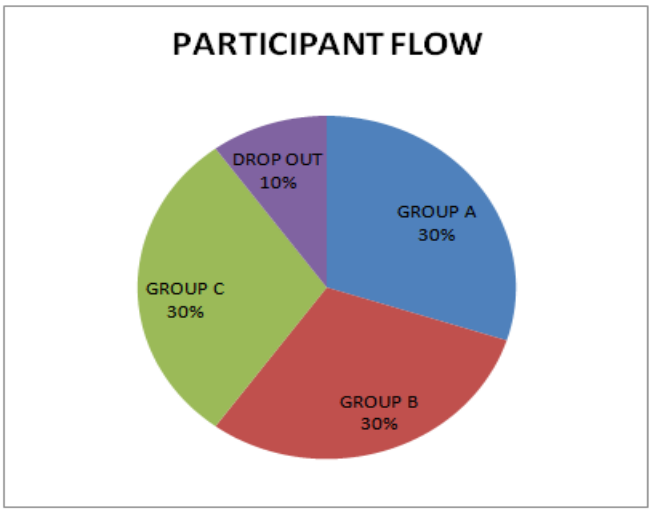
1) Participant Flow

Total enrolled: 200

Dropouts: 20

Final analyzed: 180

- Group A: 60
- Group B: 60
- Group C: 60

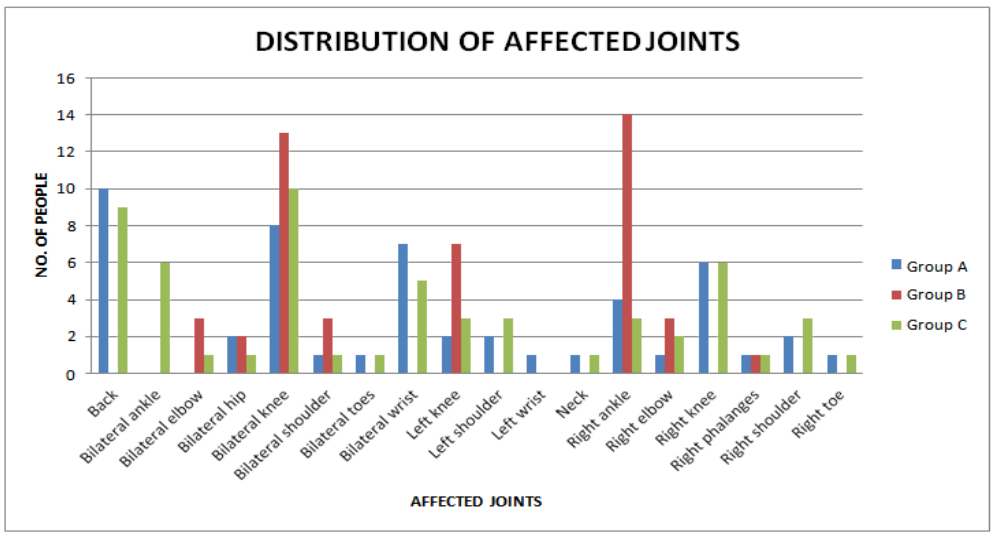


2) Baseline Distribution Tables (Demographic & Clinical)

Table 1: Group-wise sample distribution.

Group	Intervention	Sample size (n)
A	Salicylicum Acidum	60
B	Formica Rufa	60
C	Conventional	60
Total		**180**

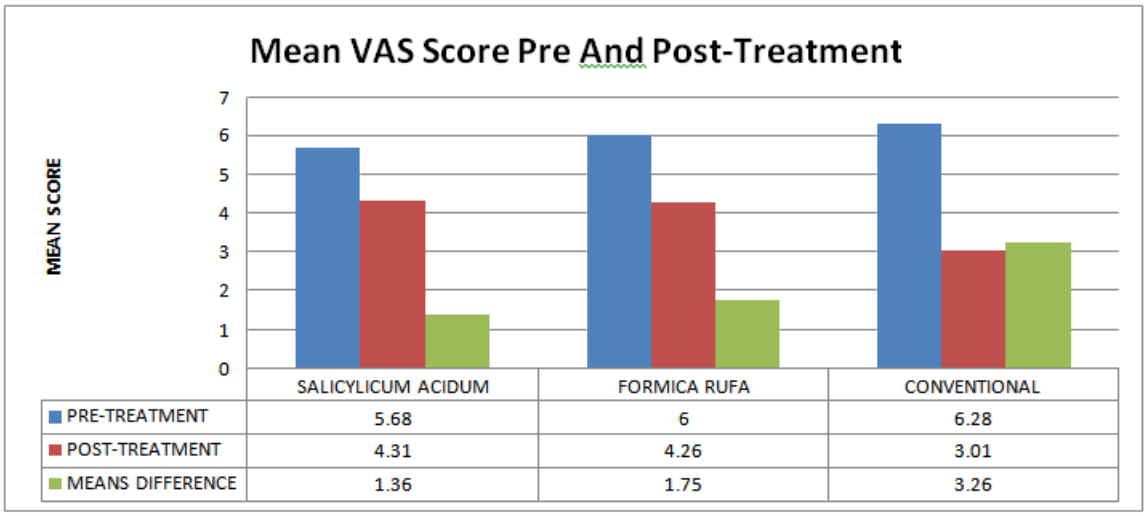
Table 2: Distribution of affected joints (Group-wise)



3) VAS Score Analysis (Pain Outcome)

Table 3: Mean VAS score pre and post treatment.

Group	Pre-treatment Mean ± SD	Post-treatment Mean ± SD	Mean difference	p-value
A (Salicylicum Acidum)	5.68 ± 1.18	4.31 ± 1.47	1.36	$p < 0.001$
B (Formica Rufa)	6.01 ± 1.15	4.26 ± 0.82	1.75	$p < 0.001$
C (Conventional)	6.28 ± 1.16	3.01 ± 1.70	3.26	$p < 0.001$



4) Inter-group Comparison (ANOVA)

A one-way ANOVA was applied to compare mean improvement between the three groups.

ANOVA Result

There was a significant difference between groups.

$F(2,177) = 16.96$, $p = 0.00$

This indicates the null hypothesis was rejected at 5% level of significance and alternative hypothesis accepted.

GROUP A (n=60)

	BEFORE T/T	AFTER T/T
MEAN	5.6833	4.3167
SD	1.18596	1.47857
SEM	0.15311	0.19088
T-value	5.996	
Df	59	

GROUP B (n=60)

	BEFORE T/T	AFTER T/T
MEAN	6.0167	4.2667
SD	1.15702	0.82064
SEM	0.14937	0.10594
T-value	12.166	
Df	59	

GROUP C (n=60)

	BEFORE T/T	AFTER T/T
MEAN	6.2833	3.0167
SD	1.16578	1.70236
SEM	0.15050	0.21977
T-value	13.617	
Df	59	

Result of ANOVA as per SPSS software					
Score after					
	Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Between Groups	65.100	2	32.550	16.960	.000
Within Groups	339.700	177	1.919		
Total	404.800	179			

DISCUSSION AND CONCLUSION

DISCUSSION

The present case series demonstrates that arthralgia affects a wide range of patients and significantly impacts daily routine activities. In this study, maximum cases were found in the age group **49–58 years**, which supports the concept that musculoskeletal disorders increase with age due to bone fragility, reduced cartilage resilience, ligament stiffness, reduced muscle strength, and degenerative changes. Rural residence was more common among patients, and mixed miasm (Psora–Sycosis) predominance was noted. Rheumatoid arthritis cases were observed prominently, and bilateral knee joint involvement was common, which aligns with clinical observations that knee pain and major joint pain are frequently reported in arthritis cases.

The VAS-based outcome analysis showed that both homeopathic interventions demonstrated improvement in pain scores. In Group A, Salicylicum Acidum reduced mean VAS from **5.68 to 4.31**, while in Group B, Formica Rufa reduced mean VAS from **6.01 to 4.26**, both statistically significant ($p<0.001$). Conventional treatment group also showed reduction in VAS score. One-way ANOVA demonstrated a significant difference among the groups,

indicating variation in effectiveness across interventions.

The improvement in arthralgia cases with Salicylicum Acidum may be attributed to its known action in rheumatic pains and bone-related discomfort, while Formica Rufa's benefit may relate to its application in rheumatic, gouty pains and stiffness. The objective VAS assessment strengthened the evaluation by providing measurable data rather than only subjective reporting.

Limitations

- Study duration (18 months) and individual follow-up (around 6 months mentioned) was a limitation.
- Individual response may vary due to miasm, heredity, previous treatment, and chronicity.
- Longer follow-up could yield more sustained and conclusive outcomes.
- Larger multicentric and double-blind research design would increase evidence strength.

CONCLUSION

This clinical case series is an initiative to generate evidence regarding pain management in arthralgia through homeopathic medicines **Salicylicum Acidum** and **Formica Rufa**. Both remedies showed statistically significant reduction in pain scores as assessed by VAS, supporting their role in symptomatic management of arthralgia. The use of objective outcome measurement tools like VAS improved the strength of results.

However, further large-scale, longer duration, double-blind and multicentric trials are recommended to confirm these findings with stronger scientific validation.

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